Work Order April-22-13 12:53			*100	319*			And the late . If the spreading of			Page 1	
Revision ID:	2229 oubler		Accept	*N900	0040	100	)* s	Setup Sta	I VI	S1* S2*	
	28/13 Start Qty: 12.0	• •		Cust Item Customer:							
	Process Plan:	_			oate:		R	tun Sta	" <b>[]</b>	R1*	
Sequence ID/ Work Center ID	Operation Description	Datt.	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	R2* Insp. Stamp	~
Draw Nbr	Revision Nbr	, , , , , , , , , , , , , , , , , , ,					- 1000				
D2229	Rev B	•									
*100 *100* Waterjet FLOW CNC Waterjet 2024.063	Delcom	s per Dwg D2229 Dwg Rev:_ if necessary	0.00  0.00  Prog Rev:	2-			15	۵		Jm13-09	ት- <b>ጋ</b> ٦
110		off machine FAI/FAIB	0.00				100			7 1 .9	25
*110* QC Quality Control	Memo		0.00				12	. 0		Jm13-09.	9.3
120	QC8- Inspect parts -	second check	DAS 27 0.00 9-89				4				
*120*	Memo		0.00 13-9	.30			15	) 	-		

Quality Control

NCR:	Yes	/	No

DQA: Date:

NCR: Y	es / No				WORK ORDER NON-	·COr	VFORI	MANCE / UPI	DAIE	QA Closed:	_ Date	e:
Work Orde					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part No					Rework Scrap		1	Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	o				Use-as-is Work Order Update	_		Large Fab	Composite	, tec/stol	Supplier	Julia
Root				Descr	iption of work order update		Initial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ct	nief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data												
quip/Tooling												
Operator												
Material						1						
Setup												
Other						-						
rocess						Ì						
Supplier				l ··								
Training												
Unapproved			*			丄						
						FAUL	LT CATE	GORY				
Landin	g Gear				General		<b>,</b>			7	r	
	Bending			L	Bend	L	Grain			Ovalized		Pressure/Forced
	Centre No	ot Conce	ntric to	o/s	BOM/Route	L	Hardwa			Over/Under	-	Temperature/Cure
	Cracks			<u> </u>	Broken/Damaged	<u> </u>	<b>-</b>	ion Incomplete		Part Incorred		Weld
	Crushed/	Crimped			Burrs		Instruct	tions Incomplete/I	Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
	Cuffs			<u> </u>	Contamination	L	Mainte	enance		Part Moved		
	Heat Trea	at			Countersink		Mislabe	eled		Positioned V		_
	Inspectio	n Strip in	Tube		Cut Too Short	L	Misread	d	·	Power Loss/	'Surge	Other
	Ripples in	n Bend			Drill Holes		Offset					
	Torque W	Vaves in I	Extrusio	n 🗌	Drawing		Out of	Calibration				
	Turning S	equence			Finish		Out of	Sequence				
	Wave/Tw	vist in Tul	be		Folio		Outside	e Dimensions				

Work Orde		00319		*100	)319*			Page 2
Item ID: Revision ID: Item Name: 1/2	D2229 Doubler			Accept	*N9000401	100*	Setup Start	ועיאו
Start Date: Required Date: Reference:	5/28/13 5/28/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item ID: Customer:			
Approvals:		lan:			Date:	·	Run Start	"NRT"
Sequence ID/ Work Center II 130 *120* Small Fab Small Fab	)	Operation Description Small Fab Memo Deburr. No	sharp edges	Set Up/ Run Hours 0.00 0.00	Tool ID Tool #  DAS 27 9-89	Plan Acc Code Qty		Reject Insp. Number Stamp
* <b>14</b> 0 * <b>110</b> * HandFinish Hand Finishing		Chemical Conversion Co	oat per QSI005 4.1	0.00			75 <u>7</u> 6	613·10°3
<sup>150</sup> <b>*15∩*</b> <sup>QC</sup>		QC3 Inspect Part Finish		0.00		(Is	D 13-10	203 PAS

Memo

Quality Control

											DQA:	Date	2:
NCR:	⁄es	/ No				WORK ORDER NON-C	OI	NFORM	MANCE / UPDATE		QA Closed:	 Date	•
<b>14</b> 4l- Od-					». « •	DISPOSITION			AGAINS	T DE	PARTMENT		
Work Orde	-					Rework Scrap Use-as-is		1	Skid-tube Crosstub Machining Small Fa noforming Finishin	b	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	۱o		<del></del> -			Work Order Update	]	mem	Large Fab Composit	~	Recystor	Supplier	
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Cr	nief Eng	Description	_	Date	Verification	QC Inspector
Doc/Data					·								
Equip/Tooling													
Operator													
Material													
Setup			·										
Other	П	!					1					,	
Process													
Supplier	П									,			
Training													
Unapproved							<u>L</u>						
						F	AUI	LT CATE	GORY				
Landi	ng G	iear				General		-		_	-		_
		Bending				Bend	<u> </u>	Grain		L	Ovalized	L	Pressure/Forced
	Ш	Centre No	ot Concei	ntric to	o/s	BOM/Route		Hardwa	ire	$\perp$	Over/Under	<u>-</u>	Temperature/Cure
		Cracks			_	Broken/Damaged		Inspect	ion Incomplete		Part Incorred	<u> </u>	Weld
		Crushed/	Crimped			Burrs		instruct	ions Incomplete/Unclear	_	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs			<u>L</u>	Contamination		Mainte	enance	L	Part Moved		
191.		Heat Trea	it			Countersink		Mislabe	eled		Positioned V	Vrong	

Misread

Out of Calibration
Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Work Order	ID	100319
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## \*100319\*

Page 3

April-22-13 12	2:53:30 PM										·	
Item ID: Revision ID:	D2229			Accept	*N900	040	100	<b>)*</b>	Setup	Start	*N	S1*
Item Name:	Doubler									Stop	*N	S2*
Start Date:	5/28/13	Start Qty: 12.00	*12*		Cust Item I	D:						
Required Date	e: 5/28/13	Req'd Qty: 12.00	*12*	•	<b>Customer:</b>						-	
Reference:									. •			
Approvals:	Process P	Plan:	Date:	Tooling:	D:	ate:	<del></del> -	F	Run	Start	1/1	R1*
	QC:		Date:	<b>SPC (Y/N):</b>	Da	ate:				Stop	*N	R2*
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
160		Identify as per dwg & Sto	ock Location: 5TOO	0.00				اردا				(45.0)
*160* Packaging		Memo		0.00				15x				
Packaging											13-	-10-3
.=.		0.004 FL 14		0.00					. ^	1		
170		QC21- Final Inspection -	Work Order Release	0.00					112	10	112	15 11
*170*		Мето	·	0.00				—— <del>`</del>	7	<i> </i>	15-	10-7
Quality Control									·	•		

118-10-H

				٠						DQA:	Date	::
NCR: Y	'es	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPDATE			
										QA Closed	: Date	:: 
Vork Orde	r:					DISPOSITION			AGAINST	DEPARTMENT	/PROCESS	
Part N	- lo					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Crosstube Machining Small Fab noforming Finishing Large Fab Composite		Water Jet od. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root		Date	Step	Qty	Desci	ription of work order update or Non-conformance		Initial nief Eng	Action Description	Sign & Date	Verification	QC Inspector
Cause	$\dashv$	Date	step	Qty		of Non-comormance	10	ner Eng	Description	Date	Vermeation	Qe irispector
oc/Data quip/Tooling												
perator								1				
laterial								1		]		
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ther												
rocess							İ	ľ				
upplier	_							ĺ				
raining					ł			,				
napproved											<u> </u>	
							FAUI	LT CATE	GORY			
Landii	$\overline{}$				_	General	_	٦	1	<del></del>		¬
	-	Bending				Bend	_	Grain		Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route	<u> </u>	Hardwa		Over/Unde	_	Temperature/Cure
		Cracks			-	Broken/Damaged	_	4 '	ion Incomplete	Part Incorre	<b>⊢</b>	Weld
	-	Crushed/0	Crimped		-	Burrs	$\vdash$	-	tions Incomplete/Unclear	Part Lost/N		Wrong Stock Pulled
		Cuffs			<u> </u>	Contamination	<u> </u>	Mainte		Part Moved		
	$\vdash$	Heat Trea			L	Countersink	$\vdash$	Mislabe		Positioned		⊐⊶
	-	Inspection	•	Tube	-	Cut Too Short	-	Misread	d	Power Loss	/Surge	Other
•	Щ	Ripples in			L	Drill Holes	$\vdash$	Offset		-,		
	Щ	Torque W			n	Drawing	Ŀ	-1	Calibration		·	
		Turning Se	•		-	Finish	_		Sequence			
		Wave/Tw	ist in Tuk	oe e	1	Folio		Outside	Dimensions			

## **Picklist Print**

April-22-13 12:53:30 PM

Work Order ID:

Parent Item Name:

100319

Parent Item:

D2229

Doubler

**Start Date:** 5/28/13

Required Date: 5/28/13

**Start Qty: 12.00** 

Required Qty: 12.00

Comments:

IPP: A02.06.05New IssueNG

	IPP Rev:B 07-08-1	15 Now On Wate	erJet JLM	1 Verified By:	EC								
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M2024T3S.063</b> 2024-T3 .063 sheet		Purchased	No			100	sf	221.8800	0.0521	0.6581052		Jm13	<u>, 09.5</u> 5
				<b>Location</b>		Loc Qty	<u>Lo</u>	c Code					
				MAT022		221.88			<del></del>				
				1199	16	0.2							
				12119	97	21.34							
				12309	96	11.4							
				1236	54	11.64			<del></del>				
				12370	01	81.3			133	701			
				12534	41	96			<del></del>				

										DQA:	Date	:
NCR: Y	es / No				WORK ORDER NON-	COI	NFORN	MANCE / UPD	ATE	QA Closed:	Date	:
<b></b>	÷				DISPOSITION				AGAINST DE	-		·
Part N	lo				Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining oforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	П	Initial	Actio	on	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descrip	otion	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												
					F	AUL	LT CATE	GORY		<u> </u>		
Landir	ng Gear			· · · · · · · · · · · · · · · · · · ·	General							
·	Bending Centre Cracks	Not Conce		o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		<b>-</b> 4 '	on Incomplete ions Incomplete/Ur nance	nclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V	ct ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	_	ion Strip ir	1 Tube		Cut Too Short		Misread			Power Loss/	_	Other
	Ripples	·-		<b> </b>	Drill Holes		Offset			•		

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

DART AEROSPACE LTD	Work Order:	100319
Description: Doubler	Part Number:	D2229
Inspection Dwg: D2229 Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X	First Article		Prototype
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Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.50	+/-0.030	2.507"	_		ν.	Jemos
1.810	+/-0.010	1.815"	_		V	
0.690	+/-0.010	0.693"	_		V	
3.00	+/-0.030	3.005	_		V	
2.343	+/-0.010	2.347"	_		ν	4
0.656	+/-0.010	0.658	-		ν	
Ø0.3125	+0.006/-0.001	0.314"	_		V.	-
Posi -					Ĵ.,	
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Measured by: Jm Audited by: 27 Prototype Approval: N/A

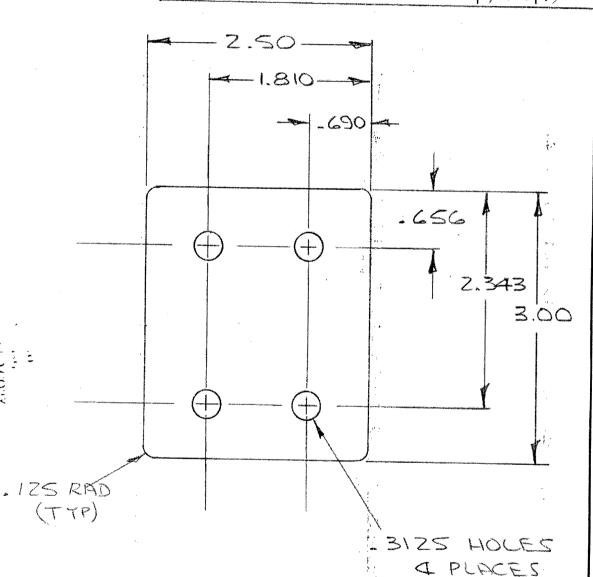
Date: 13.09.27 Date: 13.9.30 Date: N/A

	Rev	Date	Change	<u> </u>	Revised by	Approved
1	Α	07.09.06	New Issue		KJ/JLM A	B



BRADLEY	94-3.28	DART AERO ACCE	
DESIGN		DRAWING NO.	REV. C
BRADLEY	94.3.28	D5550	SHEET / OF /

DOUBLER NEW ISSUE ALUDINE WAS ANODIZE



MATERIAL: 2024-T3 ACUMINUM

. OG 3 THICK

FINISH:

12-no-51

ALODINE PER QSI 005-4.1